

# KAM

## INSTRUCTION MANUAL

# iLINK GVC

## Linkable Tri-colour DMX laser effects

M A N U A L V E R S I O N 4 . 0

11 / 11 / 11

40mW Green + 150mW Violet / colour mixed to equal Cyan  
Plug & Play operation & built-in patterns  
Linkable as a kit in Master/Slave mode  
Auto, Sound-to-Light & DMX512 modes  
10 channel DMX512 operation  
LED function display  
3 pin XLR DMX connection  
Fan cooled operation  
Key operated safety control  
Safety mounting point  
Adjustable hanging bracket  
Tough metal chassis

For the latest instruction manual updates and information on the entire Kam range visit:

# [www.kam.co.uk](http://www.kam.co.uk)

Kam products are manufactured by: **Lamba plc**, Unit 1, Southfields Road, Dunstable, Bedfordshire, United Kingdom LU6 3EJ  
Telephone: (+44) (0)1582 690600 • Fax: (+44) (0)1582 690400 • Email: [mail@lambaplc.com](mailto:mail@lambaplc.com) • Web: [www.lambaplc.com](http://www.lambaplc.com)

If this product is ever no longer functional please take it to a recycling plant for environmentally friendly disposal.

Due to continuous product development, specifications and appearance are subject to change.

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**Thank you for purchasing this KAM product, we are sure that it will serve you for many years to come.**

To optimise the performance of this product, please read these operating instructions carefully to familiarise yourself with the basic operations of this unit. After you have read the instructions, please retain them for future reference.

This unit has been tested at the factory before being shipped to you.

To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture. To prevent a fire hazard, do not expose the unit to any naked flame sources. Unplug this apparatus during lightning storms or if it is unlikely to be used for long periods of time.

When installing the unit, please ensure you leave enough space around the unit for ventilation. Slots and openings in the unit are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. To prevent fire hazard, the openings should never be blocked or covered.

Always handle the power cable by the plug. Never pull out the plug by pulling on the cable. Never touch the power cable when your hands are wet as this could cause an electric shock. Do not tie a knot in the cable. The power cable should be placed such that it is not likely to be stepped on. A damaged power cable can cause a fire or give you an electrical shock. Check the power cord periodically, if you ever find that it is damaged, replace it before using the unit again. Contact your retailer for a replacement.

The voltage of the available power supply differs according to country or region. Be sure that the power supply voltage of the area where this unit is to be used meets the required written on the unit.



**The lightning flash symbol inside a triangle is intended to alert the user to the presence high voltage within the unit's enclosure that may be of sufficient power to constitute a risk of electrical shock to persons.**

**Caution: to prevent the risk of electric shock, do not attempt to open the unit. No user-serviceable parts inside. Refer all servicing to qualified service personnel.**

**The exclamation mark inside a triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.**

Any modification carried out on the unit may invalidate the unit's warranty.

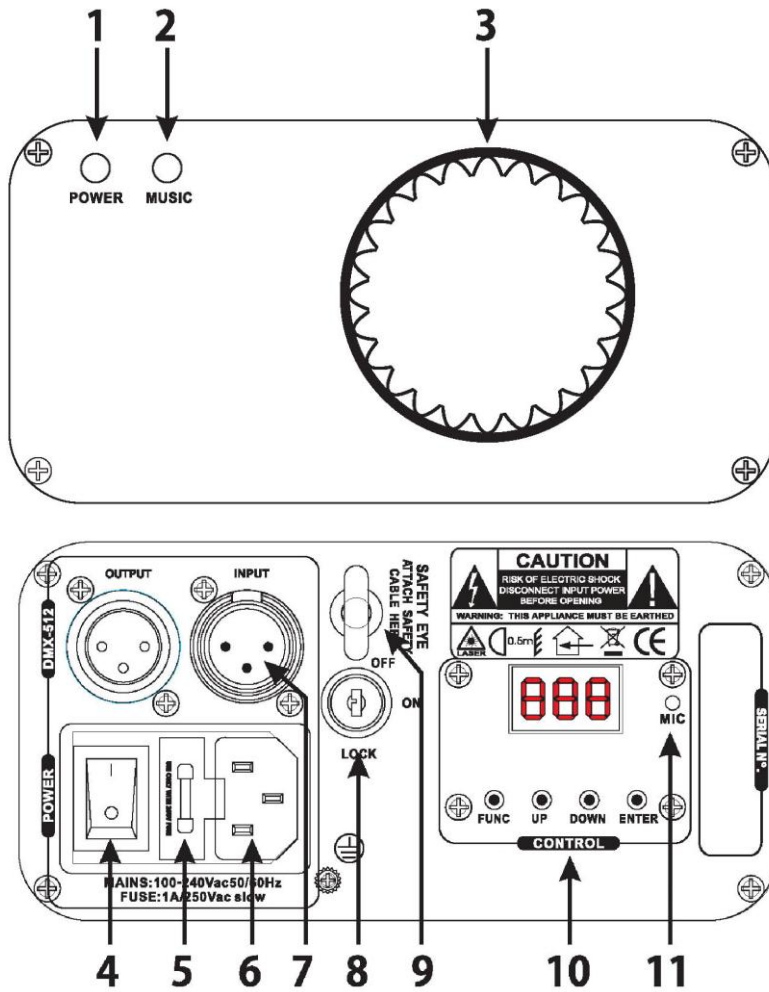
If applicable, only use the stand, tripod or bracket specified or sold with the apparatus.

Select the installation location of your unit carefully. Avoid placing it in direct sunlight or locations subject to vibration and excessive dust. Do not use the unit where there are extremes in temperature (below 41°F / 5°C or exceeding 95°F / 35°C).

Unpacking and safety: Please unpack your new product carefully, your new product should reach you in perfect condition. Please check that no damage has occurred during transit. If any damage is found, do not operate your unit. Please contact the retailer you purchased it from immediately. If there is any damage to the mains cable do not use the device. Always disconnect the unit from the mains supply when carrying out any servicing or cleaning of the unit.

The serial number for this equipment should be located on the rear or underside of the unit. Please make a note of this number as you will need it for your warranty, it is a good idea to keep a copy of the serial number for your own records.

## Panel



NO.	NAME	DESCRIPTION
1	Power LED	Indicates the fixture is switched on
2	Music LED	Synchronize to detected music signal
3	Laser Aperture	The laser effect output aperture. NEVER LOOK INSIDE THE FIXTURE THROUGH THIS APERTURE WHILE FIXTURE IS OPERATING.
4	Power Switch	Switch ON and OFF the fixture
5	Fuse Holder	Replace fuse with correct value if required
6	Main Power Input	IEC socket and integrated fuse holder.
7	DMX Input/Output	3 pins male/female XLR connector
8	Key switch	Safety key switch operates laser output
9	Safety eye	Attach the safety cable/chain
10	Control panel	To control the fixture with digital LED display, check more information on control & function
11	Microphone	To detect the music/sound signal

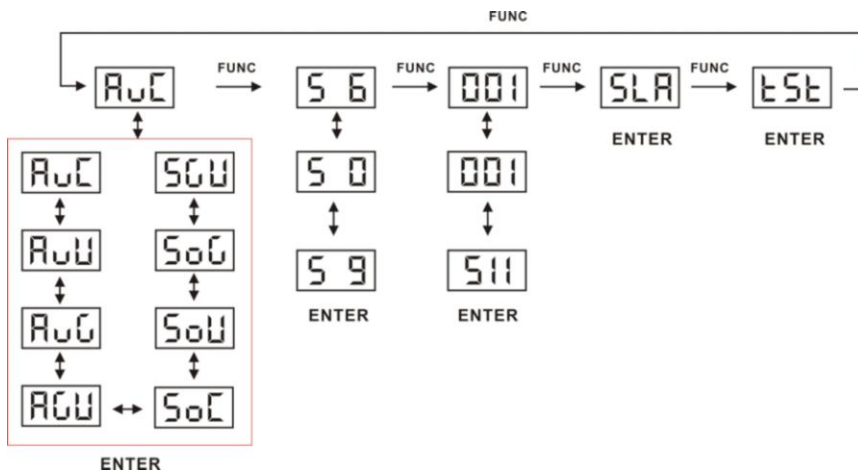
## Control & Function

Regular breaks during operation are essential to maximize the life of this device as it is not designed for continual use.

Do not switch the unit on and off in short time intervals. Always unplug the unit when it is not used for a longer time or before replacing the bulb or start servicing. In the event of serious operation problems, stop using the fixture and contact your dealer immediately.

**ATTENTION:** Laser will be output from laser aperture in 5 seconds after the unit is powered on.

## Operation



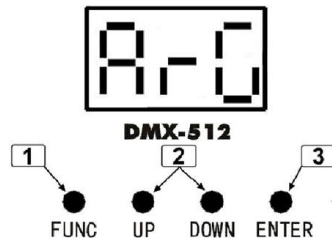
## Standalone pre-program laser show

Press FUNC to enter MODE OPTION.

Till to LED panel shows either one of Auy, Aur, Aug, Arg, Soy, Sor, Sog, Srg.

Press UP or DOWN to select your favorite Stand Alone mode as above. Press ENTER to confirm the setting.

The laser is working in stand alone. Each time when you turn on your laser, you will have this confirmed laser show.



In the MODE OPTION setting, the stand alone laser show that you are going to choose is flashing. Press UP or DOWN to change stand alone laser show, you will have 8 different stand alone preprogrammed laser show. Their DISPLAY and EFFECT are listed below:

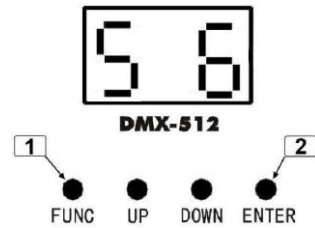
DISPLAY	STAND ALONE MODE LASER EFFECT
AuC	AUTOMATIC SHOW with single Cyan colour
AuU	AUTOMATIC SHOW with single VIOLET colour
AuG	AUTOMATIC SHOW with single GREEN colour
AGU	AUTOMATIC SHOW with GVC colour
SoC	SOUND ACTIVATED SHOW with single Cyan colour
SoU	SOUND ACTIVATED SHOW with single VIOLET colour
SoG	SOUND ACTIVATED SHOW with single GREEN colour
SGU	SOUND ACTIVATED SHOW with GVC colours

### Sound activated mode sensitivity setting

Press FUNC till to see S\*\*.

Press UP/DOWN to set microphone sensitivity. S 0 is no sound activation, from S1 to S9 is sound activated, S1 min S9 max.

Press ENTER to confirm and save the setting.



The sound sensitivity can be adjusted to determine how sensitive the laser is to sound. In the S\*\* mode there are 10 different options.

Zero = sound off

1-9 = from low to high sensitivity

A suggested setting would be in the range of 5-7. If this range is too sensitive reduce the value, if more sensitivity is required increase the value. Remember to press enter to confirm your selection.

This setting will remain in the memory when powered off (and permanently stored in the flash memory).

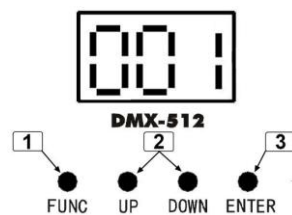
### DMX mode

Press FUNC to enter MODE OPTION.

Till the LED panel shows 001.

Use the up / down buttons to select the desired DMX starting address

Press ENTER to confirm the setting.



### Master/slave mode

Linking several units without a DMX controller

#### Master unit

Press FUNC and select desired auto option sound or auto

Press the enter button to confirm

#### Slave unit

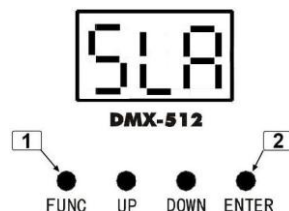
Press the mode button until LED panel shows SLA

Press ENTER to confirm the setting.

All units set to SLA will follow the master unit

These must be linked together using a 3pin XLR DMX cable (not supplied)

**Note:** only one unit must be set to master all other units set to slave.



### TESTING MODE








Press FUNC to enter MODE OPTION.

Until the LED panel shows tSt.

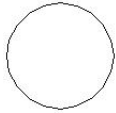






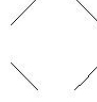

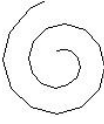

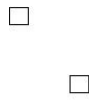
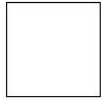
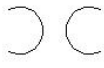

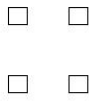
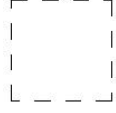



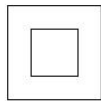



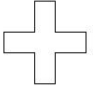





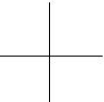

Press ENTER to confirm the setting.

The laser is working in "TEST MODE". In this mode a fixed testing pattern is run as a short demo and laser beam test to show correct working. This mode is for service only.

**DMX Protocol**

CHANNEL	VALUE	FUNCTION	
CH 1MODE	000-029	AUTOMATIC SHOW with GVC colours	
	030-059	AUTOMATIC SHOW with single GREEN colour	
	060-089	AUTOMATIC SHOW with single VIOLET colour	
	090-119	AUTOMATIC SHOW with single CYAN colour	
	120-149	SOUND ACTIVATED SHOW with GVC colours	
	150-179	SOUND ACTIVATED SHOW with single GREEN colour	
	180-209	SOUND ACTIVATED SHOW with single VIOLET colour	
	210-239	SOUND ACTIVATED SHOW with single CYAN colour	
	240-255	DMX MODE	
CH 2PATTERN	000-255	32 Patterns as shown in PATTERN LIST ch3 must have value of 25+	
CH 3 COLOUR	000-024	BLACKOUT	
	025-049	ORIGINAL PREPROGRAMED GVC COLOUR	
	050-074	VIOLET	
	075-099	GREEN	
	100-124	CYAN	
	125-149	ALTERNATE VIOLET& GREEN	
	150-174	ALTERNATE CYAN&GREEN	
	175-199	ALTERNATE CYAN &VIOLET	
	200-224	ALTERNATE CYAN&VIOLET&GREEN	
	225-255	Colour rolling	
CH4COLOUR CHANGING SPEED	00-004	STOP	
	005-255	SLOW --> FAST 	
CH 5ZOOMING	0-127	100%-5% Size	
	128-169	Zooming In	
	170-209	Zooming Out	
	210-255	Zooming In & Out	
CH 6x AXISROLLING	000-127	0 -359 degree fixed X axis rolled	
	128-191	Clockwise rolling	
	192-255	Anticlockwise rolling	
CH 7y AXISROLLING	000-127	0 -359 degree fixed Y axis rolled	
	128-191	Clockwise rolling	
	192-255	Anticlockwise rolling	
CH 8Z AXISROTATING	000-127	0 -359 degree fixed Z axis rotate	
	128-191	Clockwise rotating	
	128-255	Anticlockwise rotating	
CH 9X AXISMOVING	000-127	128 different fixed position on X	
	128-191	Clockwise moving	
	128-255	Anticlockwise moving	
CH 10Y AXISMOVING	000-127	128 different fixed position on Y	
	128-191	Clockwise moving	
	128-255	Anticlockwise moving	

# Pattern list in channel 2

DMX	PATTERNS	DMX	PATTERNS	DMX	PATTERNS	DMX	PATTERNS
000-007		064-071		128-135		192-199	
008-015		072-079		136-143		200-207	
016-023		080-087		144-151		208-215	
024-031		088-095		152-159		216-223	
032-039		096-103		160-167		224-231	
040-047		104-111		168-175		232-239	
048-055		112-119		176-183		240-247	
056-063		120-127		184-191		248-255	

## Specifications

Mains Input	AC100-240V, 50/60Hz
Fuse	250V 1 A Slow Blow (20mm Glass)
Total Power	12W
Music Control	Internal microphone
Laser Power	40mW Green + 150mW Violet / colour mixed to equal Cyan
Green Laser Medium	DPSS Nd:YVO4, 532nm
Red Laser Medium	LD GaAlAs 650nm, typical
Beam Diameter	<5mm at aperture
Pulse Data	All pulses < 4Hz (>0.25sec)
Divergence (each beam)	<2 mrad
Divergence (total light)	<160 degrees
Laser Classification	EN60825-1 2007
Laser Safety Standard	Class 3B
Condition Temperature	10~40°C
DMX Connections	3 pins XLR Male/Female
DMX Channels	10 channels
Measurement	160x160x80mm
N Weight	1.3 Kg

As measured under IEC measurement conditions for classification.